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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,600	06/27/2001	Leon Thiem	5638	2272

7590 05/23/2003

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EXAMINER

BARRY, CHESTER T

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,600

Applicant(s)

THIEM ET AL.

Examiner

Chester T. Barry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Claims 1 – 11 are rejected under 35 U.S.C. §112(2nd) for failing to particularly point out and distinctly claim the subject matter for which patent protection is sought. Each of the two independent claims in this case, i.e., claims 1 and 9, recites the expression, “to produce a first treated stormwater having an effluent concentration that meets the U[nited] S[tates] E[nvironmental] P[rotection] A[gency] Water Quality Criteria.” There is no evidence of record indicating the so-called “Water Quality Criteria” set forth a reasonably clearly defined and specific standard of contaminant concentration level for any contaminant. That is, there is no evidence that the skilled artisan would be put on fair notice by the applicant’s claims whether a particular stormwater treatment system or method would meet the “Water Quality Criteria” limitation for want of a reasonably clear understanding in the prior art of how low contaminant levels of particular contaminants must be to satisfy the so-called “Water Quality Criteria.” See, for example, www.epa.gov/waterscience/standards/about/crit.htm (downloaded 5/19/03). That site describes “Water Quality Criteria” as water quality criteria “adopt[ed] by States and authorized Tribes] with sufficient coverage of parameters and of adequate stringency to protect designated areas,” but does not set forth in sufficient detail which parameters and to what specific level of stringency the criteria are, or whether it is a national standard or may vary from State to States or Tribe. The passage cited suggests the parameters to be selected and the contaminant level is a matter left to the sound discretion of the various States and Tribes without any federal standard-setting. Specifically, the Water Quality Criteria “may” (not necessarily) be those set forth under §304 of the Clean Water Act, or may be unspecified modifications

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of the national standard, or may be unrelated to §304 provided the criteria adopted is scientifically defensible. It is noted that neither the claims nor the application as a whole suggests that applicant understood the USEPA Water Quality Standards to be those set forth at §304 of the Clean Water Act. Claims 2 – 8 and 10 – 11 are rejected for the same reasons claims 1 and 9 are rejected.

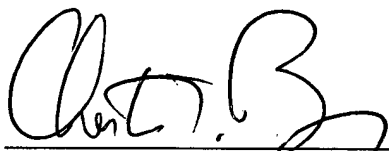
Claims 1 – 11 are rejected under 35 U.S.C. §103(a) as obvious over Bamer, Van Egmond and Ma. Bamer or Van Egmond describes placement of different adsorbents in a plurality of bags housed in a stormwater drain or catch basin having an inlet and an outlet. Activated carbon (aka charcoal) is described as a suitable adsorbent. The primary references do not describe removal of arsenic from the stormwater or run-off water using CaO adsorbent. USP 6042731 to Bonnin describes use of CaO to adsorb arsenic from wastewater. US Pat Pub 20020053259 A1 to Ma et al. describes removal of arsenic from run-off waters. It would have been obvious to have provided at least one of the adsorbent bags of Bamer or Van Egmond with CaO adsorbent because 1) Ma shows that arsenic is a known contaminant of run-off water, 2) Ma shows it is desirable to remove arsenic from run-off water, 3) CaO is a known arsenic-adsorbing material, and 4) each of Bamer and Van Egmond suggest that other unspecified adsorbents can be added to the stormwater drain/basin to remove other undesired stormwater / run-off water contaminants. It would have been obvious to have decontaminated road run-off or stormwater to the extent necessary to meet Clean

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Water Act §304 standards for the reasons Congress gave in drafting and passing that section of the statute.

The specification is objected to for lack of clarity. Applicant refers to "non-vegetative BMP's." It is unclear what they are. Are they "bone morphogenetic proteins"? Alternatively, did applicant intend BoniFibers® brand synthetic textile fibers, as described at http://filters-gbs.com/bonifibers_h.htm or at USP 5849198 to Sharpless at col 3 line 39, or at <http://tess2.uspto.gov/bin/showfield?f=doc&state=4m75qp.2.1> ? Clarification is required.

Respectfully,



CHESTER T. BARRY
PRIMARY EXAMINER

703-306-5921